



MINISTRY OF CABINET
CENTRAL BUREAU OF STATISTICS

SUDAN

Multiple Indicator Cluster Survey 2014

Key Findings April, 2015



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Foreword

The Sudan Multiple Indicator Cluster Survey (MICS) was carried out in 2014 by the Central Bureau of Statistics in collaboration with the Ministry of Health, as part of the global MICS programme. Technical support was provided by the United Nations Children's Fund (UNICEF), UNICEF, World Health Organization (WHO), United Nations Population Fund (UNFPA), World Food Program (WFP), and Department for International Development (DfID) UK provided financial support.

The global MICS programme was developed by UNICEF in 1990s as an international household survey programme to collect internationally comparable data on a wide range of indicators on the situation of children and women. MICS surveys measure key indicators that allow countries to generate accurate evidence for use in policies and programmes, and to monitor progress towards the Millennium Development Goals (MDGs) and other internationally agreed upon commitments. The specific objectives of the survey is to

- Update information for assessing the situation of children and women in Sudan based on MICS5 modules and geographical coverage of the 18 States in Sudan.
- Measure the trend towards achievement of the MDGs and the goals of a World Fit For Children Plan of Action and other internationally agreed upon indicators related to children and women.
- Furnish data needed for the indicators as per the global review of the Millennium Development Goals.
- Contribute to the improvement of data and monitoring systems in Sudan and to strengthen technical expertise, national capacity building in the design, implementation, and analysis of such systems.
- Update Census indicators and provide solid evidence for decentralization (planning and measure of progress).
- Provide key evidence for social sector programming and the Poverty Reduction Strategy Paper (PRSP) under development and accountabilities for sector strategic plans and UNDAF 2013-2016.

The objective of this report is to facilitate the timely dissemination and use of key results (national averages) from the Sudan Multiple Indicator Cluster Survey (MICS), 2014 prior to the release of full tables and the final analytical report that will contain detailed information on all survey findings by state level, various demographic, social, economic and cultural characteristics. Results related to food security will be analysed and presented within the final full report. The final survey report is expected to be released in July 2015.

Results presented in this report have been reviewed by the national MICS Technical Committee and approved by the national MICS Steering Committee. The results are not expected to change and are considered final.



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SUDAN MICS 2014 AT A GLANCE

Survey implementation			
Sample frame Listing	Sudan Population Census 2008 July 2014	Questionnaires	Household Women (age 15-49) Children under five
Interviewer training	July 2014	Fieldwork	August - November 2014
Survey sample			
Households		Children under five	
- Sampled	18,000	- Eligible	14,751
- Occupied	17,142	- Mothers/caretakers interviewed	14,081
- Interviewed	16,801	- Response rate (Per cent)	95.5
- Response rate (Per cent)	98.0		
Women			
- Eligible for interviews	20,327		
- Interviewed	18,302		
- Response rate (Per cent)	90.0		

Survey population			
Average household size	5.9	Percentage of population living in	
Percentage of population under:		- Urban areas	30.8
- Age 5	15.2	- Rural areas	69.2
- Age 18	50.6		
Percentage of women age 15-49 years with at least one live birth in the last 2 years	30.7		

Housing characteristics	
Percentage of households with	
- Electricity	44.9
- Finished floor	14.0
- Finished roofing	25.0
- Finished walls	28.1
Mean number of persons per room used for sleeping	3.23

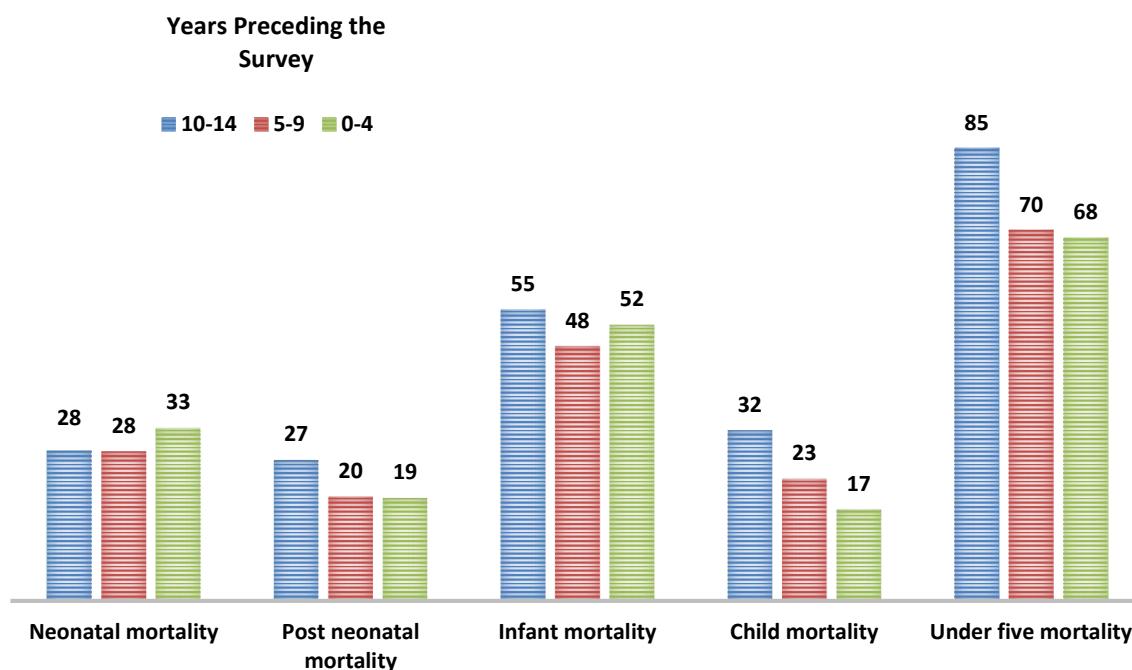
Household or personal assets	
Percentage of households that own	
- A television	39.6
- A refrigerator	25.9
- Agricultural land	39.5
- Farm animals/livestock	51.0
Percentage of households where at least a member has or owns a	
- Mobile phone	73.8
- Car or truck	6.4

CHILD MORTALITY

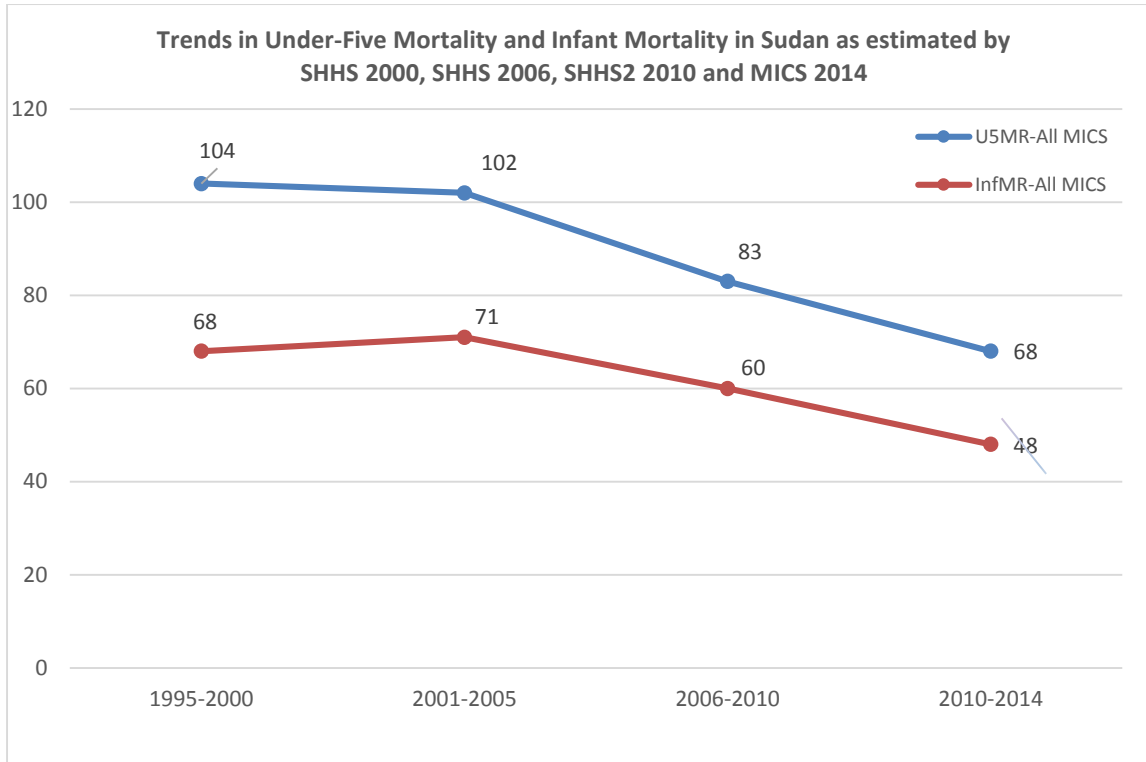
Early childhood mortality			
MICS Indicator	Indicator	Description	Value ^A
1.1	Neonatal mortality rate	Probability of dying within the first month of life	33
1.2	MDG 4.2 Infant mortality rate	Probability of dying between birth and the first birthday	52
1.3	Post-neonatal mortality rate	Difference between infant and neonatal mortality rates	19
1.4	Child mortality rate	Probability of dying between the first and the fifth birthdays	17
1.5	MDG 4.1 Under-five mortality rate	Probability of dying between birth and the fifth birthday	68

^A Indicator values are per 1,000 live births and refer to the five-year period before the survey

Figure 1: Early childhood mortality rates, Sudan MICS, 2014



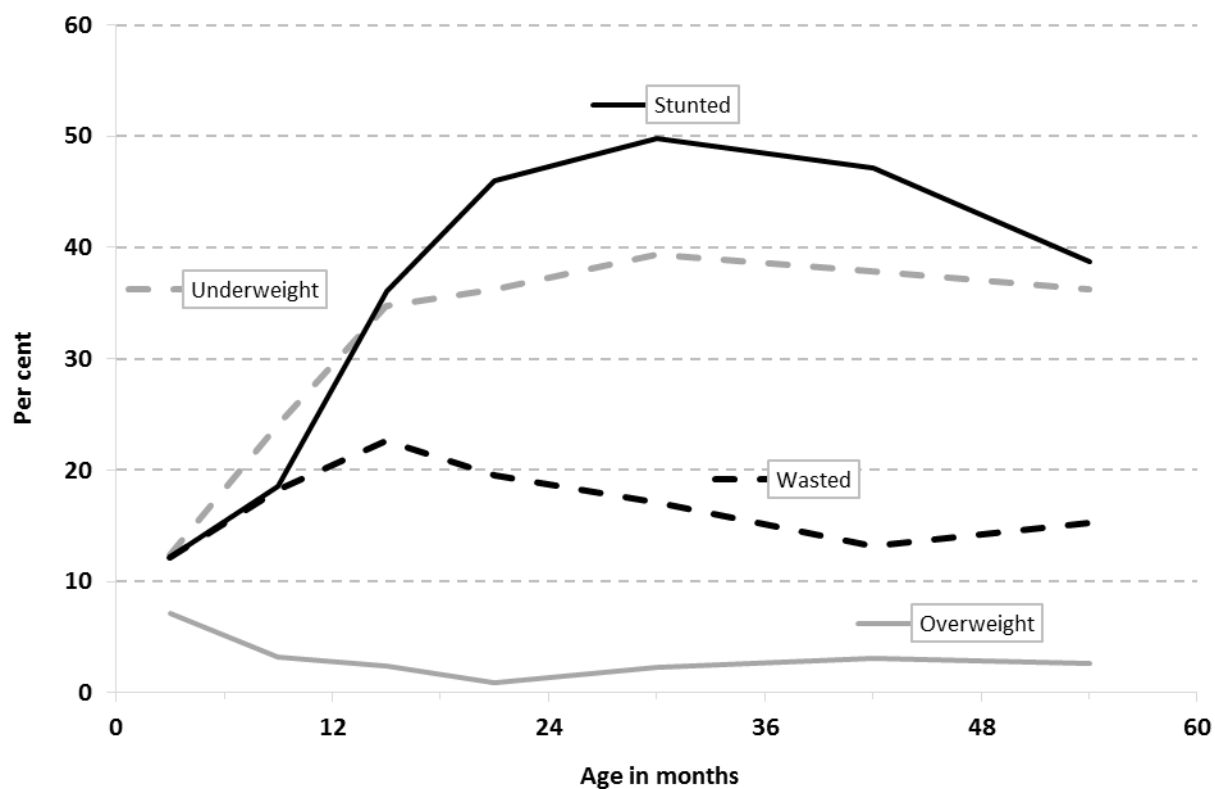
Note: Indicator Values are per 1,000 live birth



NUTRITION

Nutritional status ⁱ			
MICS Indicator	Indicator	Description	Value
2.1a	MDG 1.8 Underweight prevalence (a) Moderate and severe (b) Severe	Percentage of children under age 5 who fall below	
2.1b		(a) minus two standard deviations (moderate and severe) (b) minus three standard deviations (severe) of the median weight for age of the WHO standard	33.0 12.0
2.2a	Stunting prevalence (a) Moderate and severe (b) Severe	Percentage of children under age 5 who fall below	
2.2b		(a) minus two standard deviations (moderate and severe) (b) minus three standard deviations (severe) of the median height for age of the WHO standard	38.2 18.2
2.3a	Wasting prevalence (a) Moderate and severe (b) Severe	Percentage of children under age 5 who fall below	
2.3b		(a) minus two standard deviations (moderate and severe) (b) minus three standard deviations (severe) of the median weight for height of the WHO standard	16.3 4.5
2.4	Overweight prevalence	Percentage of children under age 5 who are above two standard deviations of the median weight for height of the WHO standard	3.0

Figure 2: Underweight, stunted, wasted and overweight children under age 5 (moderate and severe), Sudan MICS, 2014



Breastfeeding and infant feeding			
MICS Indicator	Indicator	Description	Value
2.5	Children ever breastfed	Percentage of women with a live birth in the last 2 years who breastfed their last live-born child at any time	95.6
2.6	Early initiation of breastfeeding	Percentage of women with a live birth in the last 2 years who put their last newborn to the breast within one hour of birth	68.7
2.7	Exclusive breastfeeding under 6 months	Percentage of infants under 6 months of age who are exclusively breastfed ⁱⁱ	55.4
2.8	Predominant breastfeeding under 6 months	Percentage of infants under 6 months of age who received breast milk as the predominant source of nourishment ⁱⁱⁱ during the previous day	80.8
2.9	Continued breastfeeding at 1 year	Percentage of children age 12-15 months who received breast milk during the previous day	89.4
2.10	Continued breastfeeding at 2 years	Percentage of children age 20-23 months who received breast milk during the previous day	48.8
2.11	Median duration of breastfeeding	The age in months when 50 percent of children age 0-35 months did not receive breast milk during the previous day	21.2
2.12	Age-appropriate breastfeeding	Percentage of children age 0-23 months appropriately fed ^{iv} during the previous day	63.1
2.13	Introduction of solid, semi-solid or soft foods	Percentage of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day	61.2
2.14	Milk feeding frequency for non-breastfed children	Percentage of non-breastfed children age 6-23 months who received at least 2 milk feedings during the previous day	57.5
2.15	Minimum meal frequency	Percentage of children age 6-23 months who received solid, semi-solid and soft foods (plus milk feeds for non-breastfed children) the minimum number of times ^v or more during the previous day	40.7
2.16	Minimum dietary diversity	Percentage of children age 6-23 months who received foods from 4 or more food groups ^{vi} during the previous day	28.0
2.17a	Minimum acceptable diet	(a) Percentage of breastfed children age 6-23 months who had at least the minimum dietary diversity and the minimum meal frequency during the previous day	25.0
2.17b		(b) Percentage of non-breastfed children age 6-23 months who received at least 2 milk feedings and had at least the minimum dietary diversity not including milk feeds and the minimum meal frequency during the previous day	37.0
2.18	Bottle feeding	Percentage of children age 0-23 months who were fed with a bottle during the previous day	7.3

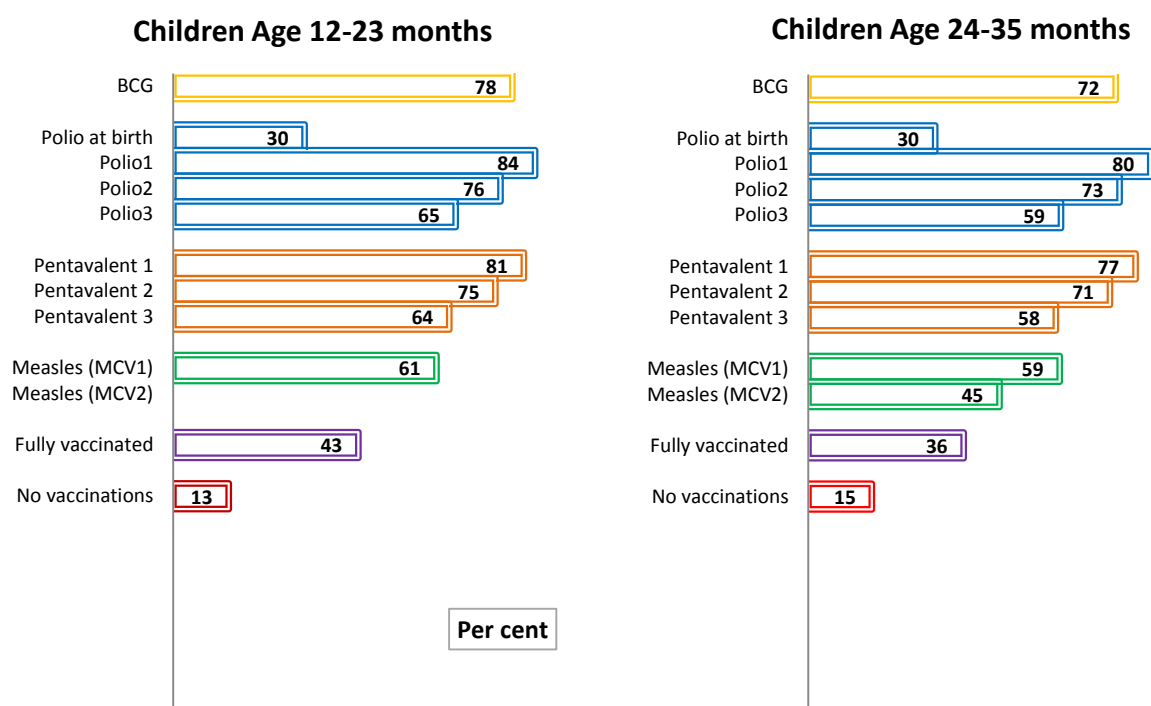
Salt iodization			
MICS Indicator	Indicator	Description	Value
2.19	Iodized salt consumption	Percentage of households with salt testing 15 parts per million or more of iodate	7.6

Low-birth weight			
MICS Indicator	Indicator	Description	Value
2.20	Low-birth weight infants	Percentage of most recent live births in the last 2 years weighing below 2,500 grams at birth	32.3
2.21	Infants weighed at birth	Percentage of most recent live births in the last 2 years who were weighed at birth	16.3

CHILD HEALTH

Vaccinations			
MICS Indicator	Indicator	Description	Value
3.1	Tuberculosis immunization coverage	Percentage of children age 12-23 months who received BCG vaccine by their first birthday	78.5
3.2	Polio immunization coverage	Percentage of children age 12-23 months who received the third dose of OPV vaccine (OPV3) by their first birthday	65.3
3.3 3.5 3.6	Pentavalent vaccine (DTP-Hep B-Hib) immunization coverage	Percentage of children age 12-23 months who received the third dose of pentavalent vaccine (Penta 3) by their first birthday	63.9
3.4 MDG 4.3	Measles immunization coverage (Measles 1, MCV1)	Percentage of children age 12-23 months who received measles vaccine by their first birthday	60.9
3.8	Full immunization coverage	Percentage of children age 12-23 months who received all ⁱⁱⁱ vaccinations recommended in the national immunization schedule by their first birthday	42.8

**Figure 3: Vaccinations by age 12 months
Sudan MICS, 2014**



Tetanus toxoid

MICS Indicator	Indicator	Description	Value
3.9	Neonatal tetanus protection	Percentage of women age 15-49 years with a live birth in the last 2 years who were given at least two doses of tetanus toxoid vaccine within the appropriate interval prior to the most recent birth	58.2

Diarrhea

MICS Indicator	Indicator	Description	Value
-	Children with diarrhea	Percentage of children under age 5 with diarrhea in the last 2 weeks	29.0
3.10	Care-seeking for diarrhea	Percentage of children under age 5 with diarrhea in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	42.7
3.12	Diarrhea treatment with oral rehydration therapy (ORT) and continued feeding	Percentage of children under age 5 with diarrhea in the last 2 weeks who received ORT (ORS packet, pre-packaged ORS fluid, recommended homemade fluid or increased fluids) and continued feeding during the episode of diarrhea.	59.3

Acute Respiratory Infection (ARI) symptoms

MICS Indicator	Indicator	Description	Value
-	Children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks	17.8
3.13	Care-seeking for children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	48.3
3.14	Antibiotic treatment for children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks who received antibiotics	59.0

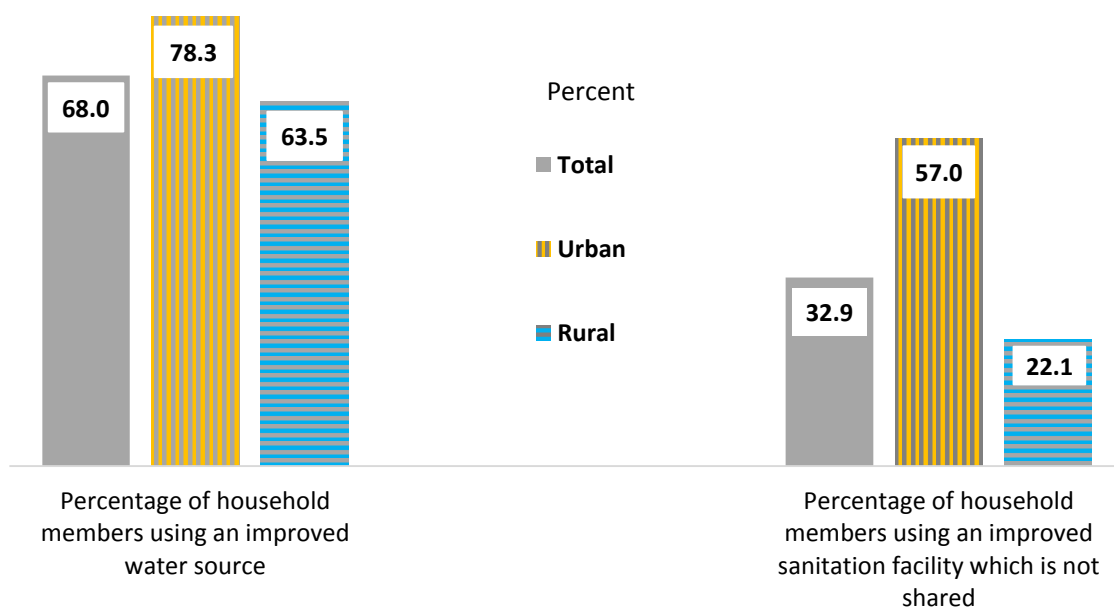
Solid fuel use

MICS Indicator	Indicator	Description	Value
3.15	Use of solid fuels for cooking	Percentage of household members in households that use solid fuels as the primary source of domestic energy to cook	58.2

WATER AND SANITATION

Water and sanitation				
MICS Indicator	Indicator	Description		Value
4.1	MDG 7.8	Use of improved drinking water sources	Percentage of household members using improved sources of drinking water	68.0
4.2		Water treatment	Percentage of household members in households using unimproved drinking water who use an appropriate treatment method	4.1
4.3	MDG 7.9	Use of improved sanitation	Percentage of household members using improved sanitation facilities which are not shared	32.9
4.4		Safe disposal of child's feces	Percentage of children age 0-2 years whose last stools were disposed of safely	53.0
4.5		Place for hand washing	Percentage of households with a specific place for hand washing where water and soap or other cleansing agent are present	25.8
4.6		Availability of soap or other cleansing agent	Percentage of households with soap or other cleansing agent	55.4

Figure 4: Use of improved water and sanitation in urban and rural areas, Sudan MICS, 2014



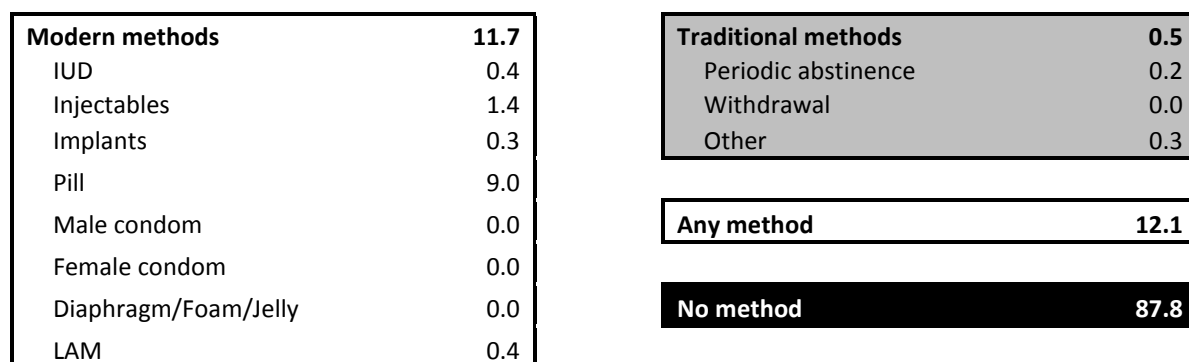
REPRODUCTIVE HEALTH

Contraception and unmet need			
MICS Indicator	Indicator	Description	Value
-	Total fertility rate	Total fertility rate ^A for women age 15-49 years	5.2
5.1	MDG 5.4	Adolescent birth rate	Age-specific fertility rate ^A for women age 15-19 years
5.2		Early childbearing	Percentage of women age 20-24 years who had at least one live birth before age 18
5.3	MDG 5.3	Contraceptive prevalence rate	Percentage of women age 15-49 years currently married or in union who are using (or whose partner is using) a (modern or traditional) contraceptive method
5.4	MDG 5.6	Unmet need	Percentage of women age 15-49 years who are currently married or in union who are fecund and want to space their births or limit the number of children they have and who are not currently using contraception

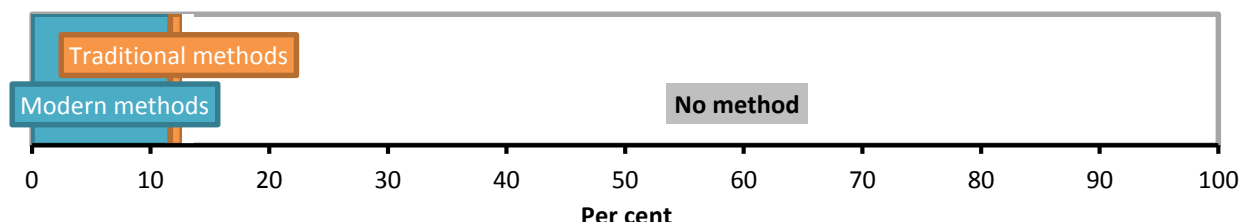
^A The age-specific fertility rate is defined as the number of live births to women in a specific age group during a specified period, divided by the average number of women in that age group during the same period, expressed per 1,000 women. The age-specific fertility rate for women age 15-19 years is also termed as the adolescent birth rate.

The total fertility rate (TFR) is calculated by summing the age-specific fertility rates calculated for each of the 5-year age groups of women, from age 15 through to age 49. The TFR denotes the average number of children to which a woman will have given birth by the end of her reproductive years (by age 50) if current fertility rates prevailed.

Figure 5: Use of contraception, MICS, 2014



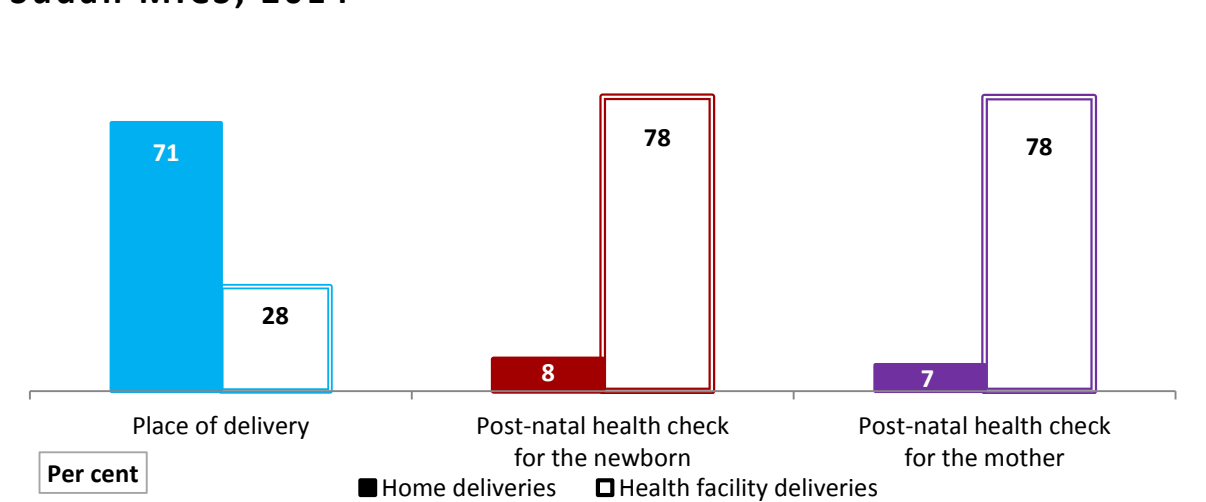
Note: The total does not add to 100% as 0.1% of responses were either "Don't know" or missing.



Maternal and newborn health				
MICS Indicator	Indicator	Description	Value	
5.5a	MDG 5.5	Antenatal care coverage	Percentage of women age 15-49 years with a live birth in the last 2 years who were attended during their last pregnancy that led to a live birth	
5.5b	MDG 5.5			
		(a) at least once by skilled health personnel	79.1	
		(b) at least four times by any provider	50.7	
5.6		Content of antenatal care	Percentage of women age 15-49 years with a live birth in the last 2 years who had their blood pressure measured and gave urine and blood samples during the last pregnancy that led to a live birth	62.8
5.7	MDG 5.2	Skilled attendant at delivery	Percentage of women age 15-49 years with a live birth in the last 2 years who were attended by skilled health personnel during their most recent live birth	77.7
5.8		Institutional deliveries	Percentage of women age 15-49 years with a live birth in the last 2 years whose most recent live birth was delivered in a health facility	27.7
5.9		Caesarean section	Percentage of women age 15-49 years whose most recent live birth in the last 2 years was delivered by caesarean section	9.1

Post-natal health checks				
MICS Indicator	Indicator	Description	Value	
5.10		Post-partum stay in health facility	Percentage of women age 15-49 years who stayed in the health facility for 12 hours or more after the delivery of their most recent live birth in the last 2 years	51.5
5.11		Post-natal health check for the newborn	Percentage of last live births in the last 2 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery	27.7
5.12		Post-natal health check for the mother	Percentage of women age 15-49 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery of their most recent live birth in the last 2 years	26.6

Figure 6: Place of delivery and post-natal health checks, Sudan MICS, 2014



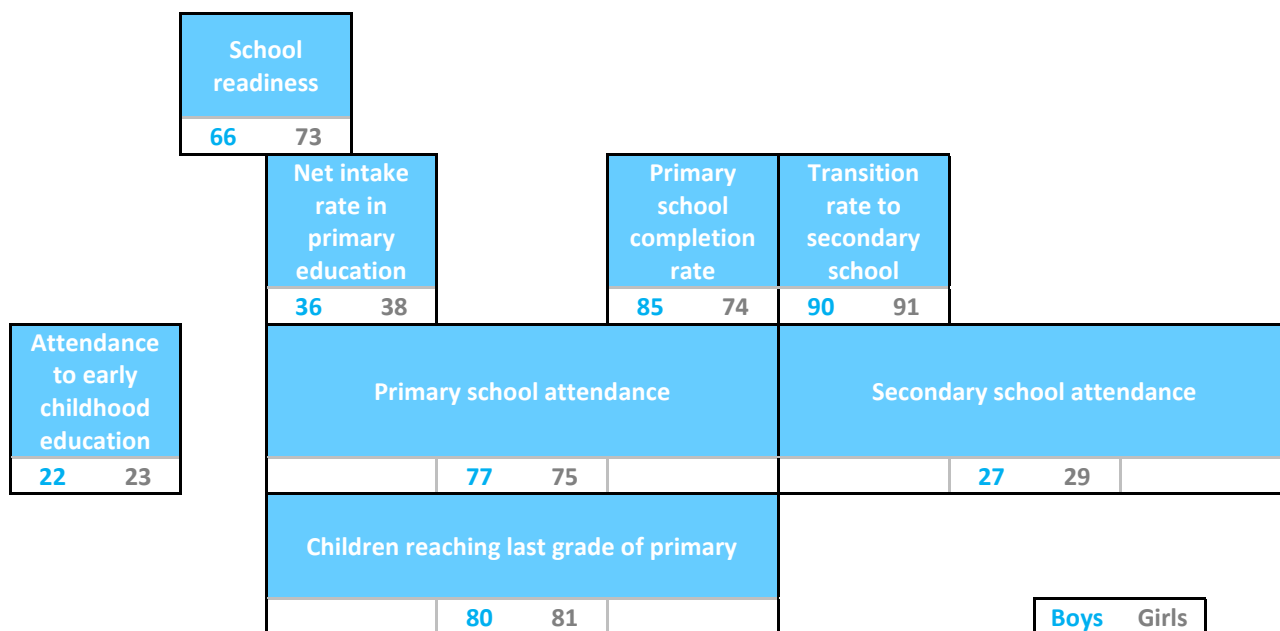
CHILD DEVELOPMENT

Child development			
MICS Indicator	Indicator	Description	Value
6.1	Attendance to early childhood education	Percentage of children age 36-59 months who are attending an early childhood education programme	22.3
6.5	Availability of children's books	Percentage of children under age 5 who have three or more children's books	1.5
6.6	Availability of playthings	Percentage of children under age 5 who play with two or more types of playthings	45.5

LITERACY AND EDUCATION

Literacy and education ^{viii}			
MICS Indicator	Indicator	Description	Value
7.1	MDG 2.3 Literacy rate among young people	Percentage of young people age 15-24 years who are able to read a short simple statement about everyday life or who attended secondary or higher education (a) women	59.8
7.2	School readiness	Percentage of children in first grade of primary school who attended pre-school during the previous school year	69.7
7.3	Net intake rate in primary education	Percentage of children of school-entry age who enter the first grade of primary school	36.8
7.4	MDG 2.1 Primary school net attendance ratio (adjusted)	Percentage of children of primary school age currently attending primary or secondary school	76.4
7.5	Secondary school net attendance ratio (adjusted)	Percentage of children of secondary school age currently attending secondary school or higher	28.4
7.6	MDG 2.2 Children reaching last grade of primary	Percentage of children entering the first grade of primary school who eventually reach last grade	80.4
7.7	Primary completion rate	Number of children attending the last grade of primary school (excluding repeaters) divided by number of children of primary school completion age (age appropriate to final grade of primary school)	79.3
7.8	Transition rate to secondary school	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year divided by number of children attending the last grade of primary school during the previous school year	90.7
7.9	MDG 3.1 Gender parity index (primary school)	Primary school net attendance ratio (adjusted) for girls divided by primary school net attendance ratio (adjusted) for boys	0.98
7.10	MDG 3.1 Gender parity index (secondary school)	Secondary school net attendance ratio (adjusted) for girls divided by secondary school net attendance ratio (adjusted) for boys	1.07

Figure 7: Education indicators by sex, Sudan MICS, 2014



Note: All indicator values are in per cent

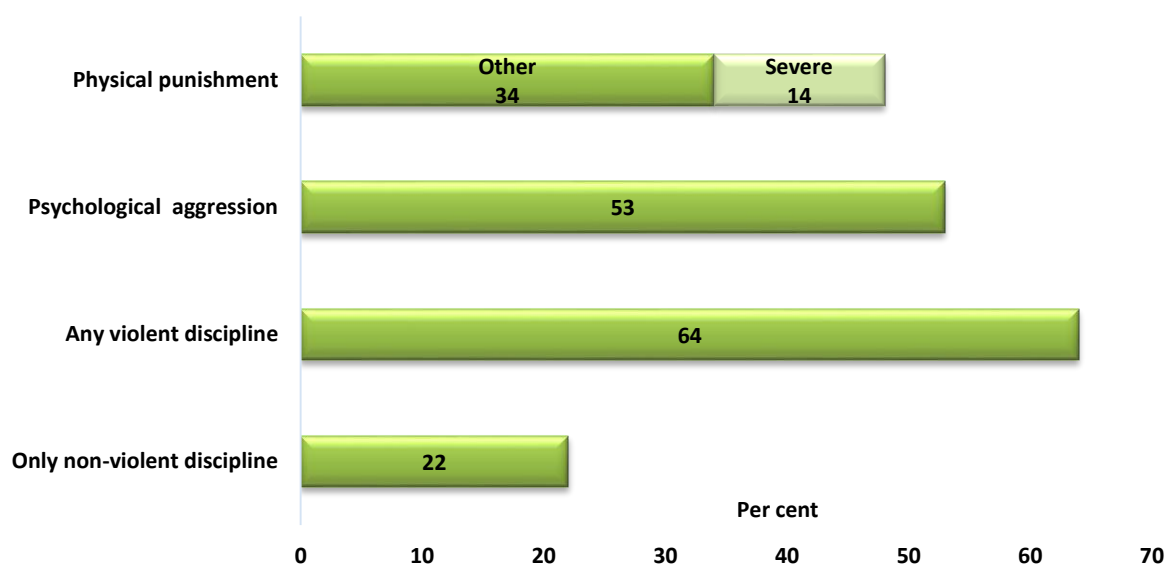
CHILD PROTECTION

Birth registration			
MICS Indicator	Indicator	Description	Value
8.1	Birth registration	Percentage of children under age 5 whose births are reported registered	67.3

Child labor			
MICS Indicator	Indicator	Description	Value
8.2	Child labor	Percentage of children age 5-17 years who are involved in child labor ^{ix}	24.9

Child discipline			
MICS Indicator	Indicator	Description	Value
8.3	Violent discipline	Percentage of children age 1-14 years who experienced psychological aggression or physical punishment during the last one month	63.9

Figure 8: Child disciplining methods, children age 1-14 years, Sudan MICS, 2014



Early marriage and polygyny

MICS Indicator	Indicator	Description	Value
8.4	Marriage before age 15	Percentage of women age 15-49 years who were first married before age 15	11.9
8.5	Marriage before age 18	Percentage of women age 20-49 years who were first married before age 18	38.0
8.6	Young women age 15-19 years currently married	Percentage of young women age 15-19 years who are married	21.2
8.7	Polygyny	Percentage of women age 15-49 years who are in a polygynous marriage	21.7
8.8a 8.8b	Spousal age difference	Percentage of young women who are married and whose spouse is 10 or more years older, (a)among women age 15-19 years, (b)among women age 20-24 years	7.9 23.0

Female genital mutilation/cutting

MICS Indicator	Indicator	Description	Value
8.9	Approval for female genital mutilation/cutting (FGM/C)	Percentage of women age 15-49 years who state that FGM/C should be continued	40.9
8.10	Prevalence of FGM/C among women	Percentage of women age 15-49 years who report to have undergone any form of FGM/C	86.6
8.11	Prevalence of FGM/C among girls	Percentage of daughters age 0-14 years who have undergone any form of FGM/C, as reported by mothers age 15-49 years	31.5

Attitudes towards domestic violence

MICS Indicator	Indicator	Description	Value
8.12	Attitudes towards domestic violence	Percentage of women age 15-49 years who state that a husband is justified in hitting or beating his wife in at least one of the following circumstances: (1) she goes out without telling him, (2) she neglects the children, (3) she argues with him, (4) she refuses sex with him, (5) she burns the food	34.0

Children's living arrangements

MICS Indicator	Indicator	Description	Value
8.13	Children's living arrangements	Percentage of children age 0-17 years living with neither biological parent	3.4
8.14	Prevalence of children with one or both parents dead	Percentage of children age 0-17 years with one or both biological parents dead	5.3
8.15	Children with at least one parent living abroad	Percentage of children 0-17 years with at least one biological parent living abroad	1.8

HIV/AIDS

HIV/AIDS knowledge and attitudes			
MICS Indicator	Indicator	Description	Value
-	Have heard of AIDS	Percentage of women age 15-49 years who have heard of AIDS	74.8
9.1	MDG 6.3 Knowledge about HIV prevention among young women	Percentage of young women age 15-24 years who correctly identify ways of preventing the sexual transmission of HIV*, and who reject major misconceptions about HIV transmission ^{xi}	8.5
9.2	Knowledge of mother-to-child transmission of HIV	Percentage of women age 15-49 years who correctly identify all three means ^{xii} of mother-to-child transmission of HIV	28.4
9.3	Accepting attitudes towards people living with HIV	Percentage of women age 15-49 years expressing accepting attitudes on all four questions ^{xiii} toward people living with HIV	7.9

HIV testing			
MICS Indicator	Indicator	Description	Value
9.4	People who know where to be tested for HIV	Percentage of people age 15-49 years who state knowledge of a place to be tested for HIV (a) Women	17.0
9.5	People who have been tested for HIV and know the results	Percentage of people age 15-49 years who have been tested for HIV in the last 12 months and who know their results (a) Women	1.6
9.6	Sexually active young people who have been tested for HIV and know the results	Percentage of young people age 15-24 years , who have been tested for HIV in the last 12 months and who know their results (a) Women	1.2
9.7	HIV counselling during antenatal care	Percentage of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they received counselling on HIV during antenatal care	4.2
9.8	HIV testing during antenatal care	Percentage of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they were offered and accepted an HIV test during antenatal care and received their results	3.6

Orphans			
MICS Indicator	Indicator	Description	Value
9.16	MDG 6.4 Ratio of school attendance of orphans to school attendance of non-orphans	Proportion attending school among children age 10-14 years who have lost both parents divided by proportion attending school among children age 10-14 years whose parents are alive and who are living with one or both parents	0.82

NOTES

ⁱ Weight and height/length measurements were successfully completed for 80.7 and 78.2 per cent of children under age 5, respectively

ⁱⁱ Infants receiving breast milk, and not receiving any other fluids or foods, with the exception of oral rehydration solution, vitamins, mineral supplements and medicines

ⁱⁱⁱ Infants receiving breast milk and certain fluids (water and water-based drinks, fruit juice, ritual fluids, oral rehydration solution, drops, vitamins, minerals, and medicines), but do not receive anything else (in particular, non-human milk and food-based fluids)

^{iv} Infants age 0-5 months who are exclusively breastfed, and children age 6-23 months who are breastfed and ate solid, semi-solid or soft foods

^v Breastfeeding children: Solid, semi-solid, or soft foods, two times for infants age 6-8 months, and three times for children 9-23 months; Non-breastfeeding children: Solid, semi-solid, or soft foods, or milk feeds, four times for children age 6-23 months

^{vi} The indicator is based on consumption of any amount of food from at least 4 out of the 7 following food groups: 1) grains, roots and tubers, 2) legumes and nuts, 3) dairy products (milk, yogurt, cheese), 4) flesh foods (meat, fish, poultry and liver/organ meats), 5) eggs, 6) vitamin-A rich fruits and vegetables, and 7) other fruits and vegetables

^{vii} Full vaccination includes the following: BCG, three doses of Polio, three doses of Pentavalent vaccine which includes Diphtheria, Pertussis, Tetanus, Hepatitis B and Haemophilus Influenzae (HiB) as a combined vaccine and Measles 1 (MCV1) administered at 9 months.

^{viii} Education indicators, wherever applicable, are based on information on reported school attendance (at any time during the school year), as a proxy for enrolment.

^{ix} Children involved in child labour are defined as children involved in economic activities at or above the age-specific thresholds, children involved in household chores at or above the age-specific thresholds, and children involved in hazardous work

^x Using condoms and limiting sex to one faithful, uninfected partner

^{xi} The two most common misconceptions about HIV transmission are included in the indicator calculation: i) mosquito bites and ii) sharing food with someone with HIV

^{xii} Transmission during pregnancy, during delivery, and by breastfeeding

^{xiii} People (1) who think that a female teacher who is HIV-positive and is not sick should be allowed to continue teaching, (2) who would buy fresh vegetables from a shopkeeper or vendor who is HIV-positive, (3) who would not want to keep secret that a family member is HIV-positive, and (4) who would be willing to care for a family member with AIDS in own home